

Supporting Statement A for Clearance for

Data and Specimen Hub (DASH) (NICHD)

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Check off which applies:

- New
- Revision
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- Reinstatement without Change
- Extension
- Emergency
- Existing

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## **Attachments**

Attachment A2.1: NICHD DASH – User Registration

Attachment A2.2: NICHD DASH – Data Submission

Attachment A2.3: NICHD DASH – Institutional Certification Template

Attachment A2.4: NICHD DASH – Data Request

Attachment A2.5: NICHD DASH – Biospecimen Request Form

Attachment A2.6: NICHD DASH – Data Use Annual Progress Report

Attachment A2.7: NICHD DASH – Biospecimen Use Annual Progress Report

Attachment A2.8: NICHD DASH – Study Catalog Submission

Attachment A2.9: NICHD DASH – Data Collection Catalog Submission

Attachment A3.1: DASH Privacy Impact Assessment

## A. Justification

This is a request to revise the previously approved submission to add the collection of additional information from Users who will submit information to NICHD Data and Specimen Hub (DASH) about studies, and data collections stored in publicly accessible external archives – a process hereinafter referred to as ‘cataloging’ in DASH.

DASH has been established by NICHD as a data sharing mechanism for biomedical research investigators. It serves as a centralized resource for investigators to share and access de-identified study data from studies funded by NICHD. DASH also serves as a portal for requesting biospecimens from selected DASH studies.

Anyone can access NICHD DASH to browse and view descriptive information about the studies and data collections without creating an account. Users who wish to submit studies or request data stored in DASH, and/or request biospecimens (stored in NICHD contracted Biorepository) must register for an account; Users who wish to submit a study catalog and/or data collection catalog must also register for an account.

### A.1 Circumstances Making the Collection of Information Necessary

This document contains information supporting a request for the OMB to approve a clearance for the collection of information during user registration, data submission, study catalog submission, data collection catalog submission, Institutional Certification submission, data request, biospecimen request, and annual progress report request associated with NICHD DASH. [Public Law 87-838](#) (enacted October 17, 1962) authorized the establishment of Institute of Child Health and Human Development for the conduct and support of research and training relating to maternal health, child health and human development, including research and training in the special health problems and requirements of mothers and children and in the basic sciences relating to the processes of human growth and development, including prenatal development. The information to be collected will be used for identifying Users and ensuring proper use and security of NICHD DASH study data and/or biospecimen inventories.

NICHD conducts and funds over 2000 clinical research studies annually. Most of these studies are conducted at various academic and research institutions across the U.S. as well as other countries. The data and biospecimens generated from these studies are under the purview of the study investigators and are not easily accessible due to challenges with storage locations, formats and structure. To address these challenges and enable broader data sharing and biospecimen access, NICHD established DASH (<https://dash.nichd.nih.gov/>) – a centralized resource for researchers to store and access de-identified study data and biospecimen inventories (a list of biospecimens available at the NICHD contracted Biorepository)- from studies funded by NICHD. DASH will allow NICHD funded extramural and intramural

investigators to comply with NIH data sharing policies and enable access to study data and biospecimens for purposes of secondary research.

Establishing a central data and biospecimen inventory sharing resource such as NICHD DASH also meets the objectives of various NIH and federal data sharing initiatives, including:

- *NIH Big Data to Knowledge (BD2K) Program (2012)* – Includes the Data and Informatics Initiative aimed at facilitating the use of and maximizing the value of biomedical data by improving data sharing policies, cataloging research data
- *Federal Policy on Public Access (Feb 2013)* – The White House Office of Science Technology and Policy Memo on increasing access to the results of federally funded scientific research includes an objective to store digitally formatted scientific data enabling search, retrieve, and analyze capabilities
- *The White House Open Data Policy (May 2013)* – Mandates that ‘data are released to the public in ways that make the data easy to find, accessible, and usable’

By facilitating study data, biospecimen inventory, study catalog, and data collection catalog sharing, NICHD will promote the secondary use of study data and biospecimens already collected; reinforce open scientific inquiry; bring together investigators from multiple disciplines; and ultimately, advance the scientific mission of NICHD.

To enable data sharing through DASH, information on Users, research studies and associated biospecimen will be collected from the Users of the system. User information stored in NICHD DASH is protected under the Privacy Act of 1974 ([Pub.L. 93-579](#), 88 Stat. [1896](#), enacted December 31, 1974, 5 U.S.C. [§ 552a](#)), which establishes a Code of Fair Information Practice that governs the collection, maintenance, use, and dissemination of personally identifiable information about individuals maintained in systems of records by federal agencies. Though the study data and biospecimen inventories stored in NICHD DASH will be de-identified, risks to individuals, groups, or communities will be balanced carefully with potential benefits of the knowledge to be gained through NICHD DASH. To protect the privacy of research participants and the confidentiality of their data and/or biospecimens, the NICHD DASH Data Access Committee (DAC) and the NICHD DASH Biospecimen Access Committee (BAC) will review the request for the proposed study data and biospecimens, as well as monitor the use of NICHD DASH data and NICHD Biorepository biospecimens, respectively.

## **A.2 Purpose and Use of the Information Collection**

Information will be collected from those wishing to create an account, sufficient to identify them as unique Users. Those submitting or requesting data and/or biospecimens will be required to provide additional supporting information to ensure proper use and security of NICHD DASH study data and biospecimens. Additionally, these Users will be required to submit an annual progress report to provide data and/or biospecimen usage information. The information collected from Users who register in NICHD DASH and submit or request data and/or biospecimens, or submit study catalogs and/or data collection catalogs, will

be used to monitor submissions and requests, Users' experience with DASH, as well as to notify interested recipients of updates to study data or biospecimen inventories available through NICHD DASH.

The potential for public benefit to be achieved through sharing study data and/or biospecimen inventories through DASH for secondary analysis is significant. Additionally, the ability to centralize information regarding where to find and how to access, studies, and data collections funded by NICHD stored across various public archives (i.e., cataloged studies and data collections) helps to promote information discovery and reuse of data. NICHD DASH supports NICHD's mission to ensure that every person is born healthy and wanted; that women suffer no harmful effects from reproductive processes; that all children have the chance to achieve their full potential for healthy and productive lives, free from disease or disability; and to ensure the health, productivity, independence, and well-being of all people through optimal rehabilitation. Study data and biospecimen sharing and reuse will promote testing of new hypotheses from data and biospecimens already collected, facilitate trans-disciplinary collaboration, accelerate scientific findings and enable NICHD to maximize the return on its investments in research.

The initial information collection package that was approved by OMB included forms for user registration, data submission and data request forms for NICHD DASH. A revised information collection package previously submitted and approved by OMB included additional forms for Institutional Certification submission, biospecimen submission and request, and annual progress report submission to NICHD DASH. To date, DASH has a total of 2,162 registered users, 180 study data submissions, 296 approved data requests, and 6 biospecimen requests. This revised information collection package is being submitted to OMB to obtain clearance for the collection of information during study catalog and data collection catalog submission to DASH.

**Users creating an account** to register will electronically submit essential information necessary to uniquely identify them in NICHD DASH (*Attachment A.2-1 User Registration*).

**Users submitting study data and biospecimens** to NICHD DASH will be required to provide information about the study investigator and descriptive information about the study. They will also be required to upload study documentation and data (*Attachment A.2-2 Data Submission*). NICHD DASH is adding a new form for Institutional Certification from the submitting institution stating that the data, biospecimens, and the biospecimen inventory have been de-identified to the standards set forth in the HHS Regulations for the Protection of Human Subjects and that an Institutional Review Board or Privacy Committee has assessed the proposed data and/or biospecimen sharing for risks, privacy considerations, and alignment with informed consent (*Attachment A.2-3 Institutional Certification Template*).

**Users submitting a study catalog** to NICHD DASH will be required to provide descriptive information about the study and where the study is stored. Data and documentation associated with studies cataloged in DASH will not be submitted or be available for request through DASH. Users must navigate to the external archive to request and obtain these study related items, using the study URL provided by the submitter in DASH (*New information collection form; Attachment A.2-8 Study Catalog Submission*).

**Users submitting a data collection catalog** to NICHD DASH will be required to provide descriptive information about the data collection and where it is stored. Data and documentation associated with data collections cataloged in DASH will not be submitted or available for request through DASH. Users must navigate to the external archive to request and obtain these data collection related items, using the data collection URL provided by the submitter in DASH (*New information collection form; Attachment A.2-9 Data Collection Catalog Submission*).

**Users requesting de-identified study data** will be required to provide information about the study investigator and a brief description of the proposed research use of the study data requested from NICHD DASH. The investigator and the authorized institutional official will be required to sign a NICHD DASH Data Use Agreement stating that the recipient will use the study data only for the approved research; will not share study data with individuals' other than the approved affiliates; will protect study data confidentiality, will not attempt to identify individual participants from whom study data were obtained; and will follow appropriate study data security protections (*Attachment A.2-4 Data Request*). The NICHD DASH DAC will review the study data requests to determine whether the proposed research use is scientifically and ethically appropriate and does not conflict with constraints or study data use limitations identified by the institutions that submitted the study data to NICHD DASH.

**Users requesting biospecimens** through NICHD DASH from the NICHD Biorepository will be required to upload the Biospecimen Request Form and submit a Material Transfer Agreement. The Biospecimen Request Form must include a brief description of the proposed research use of the biospecimens, the funding source, and the optimal and minimal amount required for the biospecimen (*Attachment A.2-5 Biospecimen Request Form*). The investigator and designated institutional official will be required to sign a NICHD DASH Material Transfer Agreement stating that the recipient will abide by appropriate laws, rules, and regulations associated with human subjects research and private information; will not share biospecimens with individuals other than the approved affiliates; will protect biospecimen confidentiality; will not attempt to identify participants from the biospecimens; will follow appropriate biospecimen security protections; and will limit the use of biospecimens for the approved research plan only.

The DASH BAC will evaluate the scientific and ethical appropriateness of the request as well as ensure that the research plan does not conflict with the biospecimen use limitations provided by the submitter of the biospecimens. The DASH BAC will also ensure that the Users requesting biospecimen(s) through NICHD DASH from the NICHD Biorepository meet the appropriate security measures (e.g., physical security, information technology security, user training).

**Users of study data and/or biospecimens** will be asked to submit an Annual Progress Report summarizing research accomplishments, patent applications (or approvals), and any updates to the list of affiliates (*Attachment A.2-6 Data Use Annual Progress Report; Attachment A.2-7 Biospecimen Use Annual Progress Report*). Annual reports are a standard reporting tool used by NIH with grants and contracts, and for use of NIH resources such as data and biospecimens. This requirement will be specified in the material transfer agreement. Many of the fields in the Annual Progress Report will be auto-populated by the system.

The information collected is limited to the essential data required to ensure the management of Users in NICHD DASH is efficient and the sharing of data and biospecimens among investigators is effective. The primary uses of the information collected from Users by NICHD will be to:

- Communicate with the Users regarding data submission, study catalog submission, data collection catalog submission, data requests and biospecimen requests
- Monitor data submissions, study catalog submission, data collection catalog submission, data requests and biospecimen requests
- Notify interested Users of updates to data and biospecimen inventories stored in NICHD DASH
- Help NICHD understand the use of NICHD DASH study data and biospecimen inventories by the research community

All the data collected from use of NICHD DASH except for certain information provided in the Annual Progress Reports such as aggregate number of publications or any significant findings from data and biospecimen use, are for the purposes of internal administrative management of NICHD DASH. The aggregate number of publications or significant findings from DASH data or biospecimen reuse may be used in publications describing value of the DASH system for the broader scientific community.

### **A.3 Use of Information Technology and Burden Reduction**

User information collected in NICHD DASH will be through the web-based portal that enables Users to electronically register for an account, request data access, request biospecimens, submit data, submit biospecimen inventories, catalog information associated with studies stored in an external public data archive, and catalog information associated with data collections stored external to DASH. User accounts will be automatically generated. If the User who registers in the system is the same as the Submitter or Requestor, the system will auto-populate the User information fields from the registration page minimizing the burden on the User. Similarly, any study information field that recurs in the system will be auto-populated from prior entry. For the annual progress reports, the system will auto-populate the fields for their research plan, affiliates, collaborators and associates from the data or specimen request to minimize the burden on the User. NICHD DASH is designed such that Users will not be asked to enter information more than once in the system.

A Privacy Impact Assessment (PIA) has been completed for NICHD DASH by the NICHD Privacy Office. NICHD DASH will operate in accordance with existing NIH policies and the Federal Privacy Act to ensure that no sensitive or personally identifiable information, located in federal systems of records is being shared in violation of these policies.

### **A.4 Efforts to Identify Duplication and Use of Similar Information**

NICHD DASH is primarily a resource for the biomedical research community that includes both NICHD funded and non-funded investigators. Information collected from these Users is not available in any other systems or federal records; hence this data collection is unique.



NICHD also supports other public archives, data collections, and resources, such as Data Sharing for Demographic Research (DSDR), NICHD/DIPHR Biospecimen Repository Access and Data Sharing (BRADS), the Down Syndrome Registry (DS-Connect), Zebrafish Information Network (ZFIN), etc. In addition to these NICHD-funded public archives, many collaborative studies funded through NICHD are dispersed across other National Institutes of Health (NIH) designated archives, including the National Heart, Lung, and Blood Institute (NHLBI) Biologic Specimen and Data Repository Information Coordinating Center (BioLINCC), and other NIH-wide repositories, such as the Database of Genotypes and Phenotypes (dbGaP).

In an effort to link these data resources and increase the visibility of NICHD-funded studies and data collections, DASH will enable Users to catalog studies and data collections stored in other external archives to facilitate their discovery through DASH. Users submitting studies or data collections for cataloging in DASH will provide descriptive information about the study required to populate the Study Overview Page in DASH. This cataloging process closely mirrors the existing study data submission process in DASH; however, no study documentation or data will be uploaded to DASH. Requesters will be directed to the external archive via a URL link to obtain access to the data stored in the external archives and resources.

#### **A.5 Impact on Small Businesses or Other Small Entities**

No small businesses will be involved in this study.

#### **A.6 Consequences of Collecting the Information Less Frequently**

Information will be collected only once from each User for each study data, study catalog, data collection catalog, and biospecimen inventory submission, and study data or biospecimen request. Once entered into NICHD DASH, the system will store the data and auto-populate when the User performs other functions related to the specific study.

The information requested in NICHD DASH electronic forms does not ask Users to generate any new information other than what they already have available and is fundamental to conducting any research study. The information is gathered following a User initiated-request and is collected on a needed basis. An Annual Progress Report is necessary to keep track of progress of study data and biospecimen use from NICHD DASH to ensure that research conducted with DASH data and NICHD biospecimens conforms to the Data Use Agreement and the Material Transfer Agreement, respectively.

#### **A.7 Special Circumstances Relating to the Guidelines of 5 CFR 1320.5**

Not Applicable.

#### **A.8.1 Comments in Response to the Federal Register Notice**

The 60-Day Federal Register notice was published on 01/14/2021, Vol. 86, pg. 3160-3162. No public comments were received.

### **A.8.2 Efforts to Consult Outside Agency**

During the planning phase of establishing a data archive, the NICHD DASH Committee conducted an extensive feasibility analysis of over 18 NIH and external data archives to determine if any of the existing archives would be adequate to meet NICHD's data sharing goals. The NICHD DASH Committee consulted experts and viewed demonstrations from many of the archives, including the National Heart Lung and Blood Institute (NHLBI) Biologic Specimen and Data Repository Information Coordinating Center (BioLINCC), the National Children's Study (NCS), NICHD's Biospecimen Repository Access and Data Sharing program (BRADS) and CDC's National Health and Nutrition Examination Survey (NHANES). The feasibility analysis included evaluations of the breadth of research data topics and types, ease of data submission and discovery, policies and governance, system scalability and flexibility, and advanced functionality such as data analytics and linkage to biospecimens.

### **A.9 Explanation of Any Payment of Gift to Respondents**

No incentives will be provided to respondents.

### **A.10 Assurance of Confidentiality Provided to Respondents**

Data collected in NICHD DASH will be stored and used according to the Federal Privacy Act of 1974. The Federal Privacy Act ensures that no sensitive or personally identifiable information, located in federal systems of records (e.g., Recipient NIH records), is being shared. A system of records is any group of records under the control of a federal agency from which information is retrieved by the name of the individual or by some identifying number, symbol, or other identifying particular assigned to the individual.

The information requested from the User seeking to submit study data and/or biospecimen inventories, **catalog studies or data collections**, request study data in NICHD DASH, and request biospecimens through NICHD DASH available from the NICHD Biorepository may be made public in part or in whole for tracking and reporting purposes. A Privacy Impact Assessment (PIA) has been completed for NICHD DASH by the NICHD Privacy Office **and the Privacy Act Memo from the NICHD ISSO is attached (Attachment A3.1)**. NICHD DASH will operate in accordance with existing NIH policies and the Federal Privacy Act to ensure that no sensitive or personally identifiable information, located in federal systems of records is being shared in violation of these policies.

**Study data and/or biospecimen inventory submitters** through an Institutional Certification are required to provide assurance that the study data, biospecimen inventory, and biospecimen(s) have been de-identified to the standards set forth in the HHS Regulations for the Protection of Human Subjects and that an Institutional Review Board or Privacy Committee has assessed the proposed study data, biospecimen inventory, and biospecimen(s) sharing for risks, privacy considerations, and alignment with the informed consent. Study data and/or biospecimen inventories submitted to NICHD DASH will be stored initially in a staging area until the de-identification status is verified by the archive staff and approved by the respective NICHD Division/Branch/Center Chief of the study. Only study data and/or biospecimen inventories that have been approved will be shared with the research community.

**Study data and/or biospecimen requestors** through the NICHD DASH Data Use Agreement or through the NICHD DASH Material Transfer Agreement are provided a Privacy Act Notification pursuant to Public Law 93-579, Privacy Act of 1974, 5 U.S.C. Section 552a. Authority for the collection of the information requested from Users comes from the authorities regarding the establishment of the National Institutes of Health, its general authority to conduct and fund research and to provide training assistance, and its general authority to maintain records in connection with these and its other functions (42 U.S.C. 203, 241, 2891-1 and 44 U.S.C. 3101), and Section 301 and 493 of the Public Health Service Act. These records will be maintained in accordance with the Privacy Act System of Record Notice 09-25-0200 (<http://oma.od.nih.gov/public/ms/privacy/pafiles/0200.htm>) covering “Clinical, Basic and Population-based Research Studies of the National Institutes of Health (NIH), HHS/NIH/OD”.

### A.11 Justification for Sensitive Questions

The ‘multi-race’ category question in the Data Submission Form and Study Catalog Submission Form are of sensitive nature but it is included because DASH is an archive for sharing study data and biospecimen inventories from NICHD funded studies that have been completed, including those conducted prior to 1977, when OMB defined new race standards and eliminated the ‘multi-race’ category. NICHD DASH preserves the originally collected study data and/or biospecimen ‘as is’ and does not manipulate any of the fields. Therefore, NICHD DASH system will need to reflect race categories that these older studies used.

None of the other information collected during study data and/or biospecimen inventory submission, study catalog submission, data collection catalog submission, data request in NICHD DASH, or biospecimen request through DASH for biospecimens available in the NICHD Biorepository include questions of a sensitive nature, such as salary, Social Security number, use of alcohol or drugs, sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered private.

#### A.12.1 Estimates of Hour Burden Including Annualized Hourly Costs

Annual Burden Hours Estimate				
Form	Number of Respondents	Number of Responses per Respondent	Average Time Per Response (in Hours)	Total Annual Burden Hour
User Registration	200	1	5/60	17
Data and Biospecimen Inventory Submission	36	1	2	72
Study Catalog Submission	10	1	30/60	5
Data Collection Catalog Submission	6	1	15/60	2
Data Request	60	1	1	60
Biospecimen Request	36	1	1	36
Data Use Annual Progress Report	60	1	10/60	10

Biospecimen Use Annual Progress Report	36	1	10/60	6
Institutional Certification Template	36	1	5/60	3
<b>Total</b>	<b>200</b>	<b>480</b>		<b>211</b>

### A.12.2 Annualized Cost to Respondents

Total Annual Cost Burden Estimate			
Type of Respondent	Total Annual Burden Hours	Wage rate	Total Cost
Medical Scientist	211	\$47.49	\$10,020.39

Salary/Wage Source: Bureau of Labor Statistics/Occupational Employment and Wages, May 2019: Occupational Code 19-1042, Medical Scientists, national estimates: <http://www.bls.gov/oes/current/oes191042.htm>

### A.13 Estimate of Other Total Annual Cost Burden to Respondents or Record Keepers

There are no additional costs other than the respondents' burden given in A12.

### A.14 Annualized Cost to the Federal Government

The annualized cost to the federal government is \$ 15,022.46

Staff	Grade/Step	Salary	% of Effort	Fringe (if applicable)	Total Cost to Gov't
Federal Oversight - Application Lead/ Program Officer	GS-15/ Step 4	\$ 156,973	2.0		\$ 3,139.46
Contractor Cost - Archive Administrator/ Content Analyst		\$ 118,830	10.0	N/A	\$ 11,883.00
<b>Total Cost</b>					<b>\$ 15,022.46</b>

Salary/Wage Source: Office of Personnel Management 2020 General Schedule Locality Salary Table for various GS-levels; contractor rates based on GSA IT schedules.

### A.15 Explanation for Program Changes or Adjustments

NICHD DASH is expanding its functionality to facilitate the findability of NICHD-funded studies and data collections shared through other publicly accessible archives. The new functionality will enable investigators to discover studies and data collections available through other publicly accessible archives for the purposes of secondary research. Establishing a central resource to showcase all NICHD-funded studies and

data collections, including those housed in DASH and in other archives, in a standardized format also helps address the objectives of various NIH and federal data sharing and data science initiatives.

Enabling these new functionalities, however, will necessitate additional information gathering, as described in section A.2, Purpose and Use of the Information Collection. Accordingly, there will be two new data collections forms implemented for users to submit information about their research study (*New information collection form; Attachment A.2-8 Study Catalog Submission*) or data collection (*New information collection form; Attachment A.2-9 Data Collection Catalog Submission*) stored in another publicly accessible archive – a process referred to as 'cataloging' in DASH.

#### **A.16 Plans for Tabulation and Publication and Project Time Schedule**

All the data collected from use of NICHD DASH except for information provided in the Annual Progress Report are for the purposes of internal administrative management of NICHD DASH. Information gathered through the Annual Progress Report may be used in publications describing performance of the DASH system.

#### **A.17 Reason(s) Display of OMB Expiration Date is Inappropriate**

Not applicable.

#### **A.18 Exceptions to Certification for Paperwork Reduction Act Submissions**

The data in NICHD DASH are collected in a manner consistent with the certification statement. No exceptions are requested.